Claims

[c1]   A method for acquiring digital x-ray images, said method comprising:

identifying scan parameters designating slices of interest from a patient
anatomy;

scanning the patient in a first direction utilizing a servo-tomo function
based on said scan parameters to obtain a first x-ray image; and

scanning the patient in a second direction utilizing the servo-tomo
function based on said scan parameters to obtain a second x-ray image.

[c2]   The method of claim 1, wherein the scan parameters include at least one of:

a focal plane of interest;

a sweep angle;

a focal plane thickness; and

an exposure time.

[c3]   The method of claim 1, further comprising calculating first and second
preparation positions located on opposite ends of a scan range over which first
and second scans of the patient are acquired.

[c4]   The method of claim 1, further comprising:
initiating said scanning in said first direction beginning at a preparation
position located at one end of a scan range; and
initiating said scanning in said second direction beginning at a preparation
position located at an opposite end of said scan range.

[c5]   The method of claim 1, further comprising calculating detector and x-ray tube
travel distances and sweep velocities based on said scan parameters.

[c6]   The method of claim 1, further comprising:
after scanning in said first direction, displaying said first x-ray image; and
after said scanning in said second direction, displaying said second x-ray
image, wherein said first and second images are co-displayed in a multi-image
format.

[c7]   The method of claim 1, further comprising:

saving the image in an image storage device; and

displaying the image on a multi-image format display.

[c8] The method of claim 1, further comprising loading precalculated stored x-ray tube angulation and detector and x-ray tube velocity and travel distances before each acquisition.

[c9] The method of claim 1, further comprising modifying said scan parameters before scanning a next x-ray image.

[c10] 10. A method for displaying digital x-ray images in a multi-image format, said method comprising:

identifying scan parameters designating multiple slices of interest from a patient anatomy;

acquiring a series of images corresponding to said multiple slices of interest;

displaying images simultaneously as each of said series of images is acquired; and

after acquisition and simultaneous display of each image in said series of images, halting said acquiring step until reinitiated by an operator.

[c11] The method of claim 10, wherein said identifying step designates all scan parameters needed for acquisition of said series of images before beginning said acquiring step.

[c12] The method of claim 10, further comprising after each acquisition, prompting the operator to change previously identified scan parameters designating a slice of interest not yet acquired.

[c13] The method of claim 10, further comprising redefining previously identified scan parameters designating a slice of interest not yet acquired after each acquisition.

[c14]

The method of claim 10, wherein the scan parameters include at least one of:

a focal plane of interest;

a sweep angle;

a focal plane thickness; and

an exposure time.

[c15]   The method of claim 10, wherein the acquiring step further comprises:
scanning a patient in a first direction; and
scanning said patient in a direction opposite to said first direction.

[c16]   The method of claim 10, wherein the acquiring step further comprises
calculating first and second preparation positions located on opposite ends of a
scan range over which said series of images of the patient are carried out.

[c17]   The method of claim 10, further comprising loading precalculated stored
detector and x-ray tube velocity and travel distances before each acquisition.

[c18]   The method of claim 10, further comprising loading a preparation position after
each said acquisition, wherein said preparation position is located at the
opposite end of a scan range as a location of a previous preparation position.

[c19]   The method of claim 10, wherein said images are acquired utilizing a servo-
tomo function.

[c20]   The method of claim 10, further comprising calculating detector and x-ray tube
travel distances and sweep velocities based on said scan parameters.

[c21]   The method of claim 10, further comprising calculating x-ray tube angulation
based on said scan parameters and said x-ray tube travel distance.